get_map

Arguments

location: an address, longitude/latitude pair (in that order), or left/bottom/right/top bounding box.

zoom: map zoom, an integer from 3 (continent) to 21 (building), default value 10 (city). OpenStreetMaps limits a zoom of 18, and the limit on Stamen maps depends on the maptype. "auto" automatically determines the zoom for bounding box specifications, and is defaulted to 10 with center/zoom specifications. Maps of the whole world currently not supported.

scale: scale argument of get_gogolemap or get_openstreetmap

maptype: character string providing map theme. Options available are "terrain", "terrain-background", "satellite", "roadmap", and "hybrid" (Google Maps), "terrain", "watercolor", and "toner" (Stamen maps), or a positive integer for CloudMade maps (see ?get_cloudmade)

source: Google Maps ("google"), OpenStreetMap ("osm"), Stamen Maps ("stamen"), or CloudMade maps ("cloudmade")

force: force new map (don’t use archived version)

messaging: turn messaging on/off
map <- get_map(location = c(17, 45), zoom = 4)
ggmap(map) +
    geom_point(data = migrants,
              aes(longitude, latitude))
Migrants

map <- get_map(location = c(17, 45), zoom = 4, maptype = "watercolor")
Migrants

cause_of_death
- asphyxiated
- attacked by animals
- bled to death due to barbed wire
- blown in minifield
- burned
- burned or asphyxiated due to arson attack
- car accident
- crushed
- died (presumably) from ill treatments
- died after a fight
- died because of dangerous undeclared work
- died from dehydration
- died in childbirth
- died of a shock
- died of kidney failure
- died of sudden infant death
- drowned
- drowned or thirst
- electrolyzed
- executed
- exhaustion
- exhaustion or thirst
- fall
- frozen
- heart failure
- heat exhaustion
- hypothermia
- hypothermia and dehydration
- illness
- killed by bomb
- lack of medical care
- murdered
- police violence
- run over
- run over by a bus
- run over by a car
- run over by a train
- run over by a truck
- shot
- shot by the police
- starved
- starved or died from dehydration
- suffocated or drowned
- suicide
- suicide - hanged
- suicide - hungerstrike
- suicide - jumped from building
- suicide - jumped from train
- suicide - jumped in water
- suicide - other
- suicide - put on fire
- suicide - under train
- unknown
- wrong medical treatment, overdose
Napoleon’s March
The Minard Map: "Best statistical graphic ever"
The Minard Map

Load the libraries and the data

```r
library(dplyr)
library(ggplot2)
library(scales)
library(ggmap)

minard <- read.csv("minard.csv", row.names = 1, stringsAsFactors = FALSE)
```
The Minard Map

Create the first layer: background and titles

layer1 <- ggplot(troops,
  aes(x = long, y = lat)
  xlab("") + ylab("") +
  ggtitle("Napoleon's March to Russia")
The Minard Map

Create the second layer: The troops data

```r
layer2 <- layer1 + geom_path(data = troops, aes(size = survivors, color = direction, group = division), lineend = "round", linejoin = "round")
```
The Minard Map

Create the third layer:
Add the cities

layer3 <- layer2 +
  geom_text(data = cities,
            aes(label = city),
            size = 3)
The Minard Map

Create the fourth layer:
Adjust the colors and legends

layer1 + layer2 + layer3 +
  scale_size("Survivors", range = c(1, 10), label = comma) +
  scale_color_manual("Direction", values = c("grey50", "red"))
The Minard Map

Change the background to a map of Russia

russia <-
ggmap(get_map(location =
c(left = 22, bottom = 53.5,
right = 39, top = 56.5),
zoom = 6, maptype =
"toner", source =
"stamen")
)